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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,527	07/24/2003	Yoshinori Yoshida	Q76642	8152
23373 7590 05/13/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
DESAL, ANISH P				
ART UNIT		PAPER NUMBER		
1787				
NOTIFICATION DATE		DELIVERY MODE		
05/13/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/625,527

Applicant(s)

YOSHIDA ET AL.

Examiner

ANISH DESAI

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 6-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-8 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on 04/06/10 after final rejection mailed on 11/06/09. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/06/10 has been entered.
2. 112-first paragraph rejections as set forth on page 3 of 11/06/09 Office action (OA) are maintained.
3. In view of applicant's amendment and response 103(a) rejections based on Barrera (US 5,965,256) in view of Rogers Jr. (US 3,642,567) are withdrawn. Barrera does not teach or suggest that the urethane polymer and an acrylic polymer are bonded together. Barrera teaches interpenetrating polymer network (IPN) formed of urethane-acrylate, wherein urethane polymer and acrylic polymer are not bonded. Similarly, Roger Jr. does not teach or suggest that the urethane polymer and acrylic polymer are bonded.

Claim Objections

4. **Claims 6 and 7 are objected to because of the following informalities:** claim 6 recites "2.0 * 10⁸ Pa" and "3.0 * 10⁵ Pa". Applicant should fix the superscript value for "10⁸". It should read "10⁸". Similar observation is made for claim 7. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claims 1, 2, 4, 6-8, and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.**

6. Claim 1 recites "wherein the urethane polymer and an acrylic polymer are bonded together". Specification as originally filled fails to provide support to broadly recite that the urethane polymer and acrylic polymer are bonded together. As noted by

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the Examiner on page 2, section 4 of the Advisory Action mailed on 03/24/10, while there may be a support for a **specific** urethane polymer and **specific** acrylic polymer that can be bonded together and for specific type of polymer, namely urethane/acrylic block copolymer, which possesses **specific type of bonding**, i.e. covalent bonding, there does not appear to be a support in the specification to broadly claim that **any** urethane polymer and **any** acrylic polymer are bonded together. While there may be support to recite language such as that of recited on page 6 of applicant's response submitted on 03/05/10 (see "For example, the urethane polymer and the acrylic polymer of this invention can be bonded together by performing a reaction of carboxylic groups...with end isocyanate groups of urethane polymer") in the presently claimed invention. However, the Examiner respectfully reminds applicant that any such amendment must have a support in the specification in order to avoid new matter issues.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. **Claims 1, 2, 4, 6-8, and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Nagamoto et al. (US 6,156,423) in view of Ebe et al. (JP 62-153376). US 4,756,968 to Ebe et al. is relied upon as an equivalent for convenience.**
8. With respect to claim 1, the PSA sheet of applicant's claim requires a structure of a first film/composite film/PSA.
9. Regarding claim 1, Nagamoto discloses an adhesive tape, wherein the adhesive tape comprises a film layer formed of curing a mixture of urethane-acrylate oligomer and reactive-diluent monomer (e.g. monofunctional or multi-functional acrylic monomer) (see column 3 lines 1-5 and column 3, lines 65-67 to column 4 lines 1-26), a barrier layer that is formed on at least one side of the film layer (abstract and column 3 line 5), and a layer of adhesive.
10. **The Examiner equates the film layer of Nagamoto that is formed of urethane-acrylate with applicant's composite film comprising urethane polymer and acrylic polymer, wherein the urethane polymer and acrylic polymer are bonded together as claimed.** Further, the barrier layer of Nagamoto is made of resins such as PET, PE, and PP (see column 4 lines 55-65) and the barrier layer can be formed on one or both surface of the film layer (composite film) (column 5 lines 64-66). **Thus, the barrier layer is equated to the first film comprising a material different**

from that of the composite film, and the first film laminated on one side of the composite film.

11. As to claim 1 limitation of the adhesive layer formed on the other side of the composite film, at column 5 lines 61-67, Nagamoto discloses that "In FiG 2, by the way, the barrier layer [first film] is only formed on one side of the film layer 1, and then the adhesive layer 4 is formed on a surface of the barrier layer 2. According to the present invention, however, both sides of the film layer 1 [composite film] may have the barrier layer 2 [first film] as necessary and one side or both sides of the barrier layers 2 may have the adhesive layer(s) 4."

12. As to claim 4 limitation "...composite film comprises a film obtained by reacting a polyol and a polyisocyanate in a acrylic monomer to form the urethane polymer, coating a mixture of the urethane polymer and the acrylic monomer on the first film and irradiating a radiation onto the coating to cure it.", this limitation is a product by process limitation.

13. Product by process claim is not limited to the manipulations of the recited steps, only the structure implied by the steps. "Even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious

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from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

14. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). In the instant case the composite film of Nagamoto as set forth previously and that of applicant comprise urethane polymer and acrylic polymer bonded together. Further as previously noted, the composite film of Nagamoto is on the first film (barrier layer of Nagamoto). As such, there is no difference between the structure of the composite film as obtained from the process of claim 4 and that of disclosed by Nagamoto.

15. Regarding claims 8 and 10, the thickness of the barrier layer (first film) of Nagamoto et al. is 0.1 micrometer to 40 micrometer (column 3, line 30) and the thickness of the film layer (composite film) of Nagamoto et al. is 100 to 490 micrometer (column 4, lines 49-50).

16. **The difference between the claimed invention and the prior art of Nagamoto is that** Nagamoto does not explicitly disclose that the adhesive used in his invention is PSA. However, Nagamoto at column 5 lines 50-55 discloses that adhesive layer of his invention may includes those disclosed in Ebe. et al. (JP 62-153376). It is noted that

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Ebe discloses PSA comprising copolymers formed from (meth)acrylates including ethyl acrylate and butyl acrylate as well as comonomers such as (meth)acrylic acid (column 6, lines 14-33), which is identical to the type of acrylic resin used in the acrylic adhesive of the present invention (see paragraphs 0077-0079 of Pg Pub of this application).

17. As such, it would have been obvious to use the PSAs including that of taught by Ebe in the invention of Nagamoto as PSA layer, because Nagamoto desires adhesive described by Ebe as suitable PSA that can be used in his invention and Ebe provides PSA that prevents adhesive from adhering to the surface of a wafer chip.

18. As to the claimed properties of the modulus of PSA sheet (claims 1 and 2), storage modulus of the composite film (claim 6), and the storage modulus of the first film (claim 7), it is reasonable to presume that said properties are necessarily present in the invention of Nagamoto as modified by Ebe.

19. The support for said presumption is based on the fact that the PSA sheet of Nagamoto as modified by Ebe, and that of applicant comprise a composite film comprising urethane polymer and acrylic polymer bonded together, a first film having material different from that of the composite film, and the PSA layer as claimed. There is no difference in structure and/or composition of the PSA sheet of applicant's claimed invention and that of the invention of Nagamoto as modified by Ebe. Thus, the

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aforementioned properties would necessarily be present in the PSA sheet of Nagamoto as modified by Ebe.

Response to Arguments

20. Applicant's arguments submitted on 04/06/10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1787

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1787